

REMARKS

I. Status of the Application

Claims 1-28 are pending in this application. In the July 5, 2007 office action, the Examiner:

- A. Rejected claims 1, 5, 15 and 19 under 35 U.S.C. §102(e) as being anticipated by US Patent 6,711,579 to Balakrishnan;
- B. Rejected claims 2, 3, 6-14, 16, 17 and 19-28 under 35 U.S.C. §103(a) as being unpatentable by US Patent 6,141,595 to Gloudemann et al.;
- C. Rejected claims 4 and 18 under 35 U.S.C. §103(a) as being unpatentable over Balakrishnan in view of Gloudemann, further in view of US Publication 2003/0229652 to Bakalash.

For reasons set forth more fully below, Applicant respectfully submits that the Balakrishnan reference fails to disclose each and every limitation of the independent claims 1 and 15 as well as the dependent claims 5 and 19. Without an appropriate foundation, the section 103 grounds of rejection must also fall. Additionally, the ancillary references, Gloudeman and Bakalash, fail to disclose most of the limitations for which they are cited and also do not combine with Balakrishnan to provide Applicant's invention without recourse to Applicant's specification. Such recourse, however, is the use of Applicant's specification with impermissible hindsight. Thus, the section 102 and 103 grounds of rejection are inadequately supported by the cited references and all of the claims are patentable over all references of record, either alone or in combination.

II. Limitations Missing From The Cited References

A. Section 102(e) Ground of Rejection

Claim 1

In the Office Action, the Examiner asserts that the Balakrishnan reference discloses each and every limitation of claim 1. In presenting this assertion, the Examiner identified the semantic bridge (SB) servlet 38 as the system design converter of claim 1. As required by claim 1, the system design converter converts application definition data into computer statements that implement the control logic of the application definition data. The SB servlet does not operate to convert application definition data into computer statements. Instead, Balakrishnan teaches that “a user source program 32 written using the Semantic Programming Interface[, which] contains the program that the client wants executed on the remote database, as well an identification program domain 34 for which the source program 32 is written.” *Balakrishnan*, col. 17, lines 30-34. Thus, Balakrishnan has a user generate a source program using a Semantic Programming Interface. This program is then sent to the external server 26 where the SB servlet compiles the program and executes it. *Balakrishnan*, col. 17, lines 14-18, col. 18, lines 24-26, and FIG. 5. Therefore, the SB servlet compiles a source program that has been written by a user rather than operating as a system design converter that receives application definition data and converts these data into computer statements that implement the control logic of these data.

Claim 1 also requires that a data provider interface convert between a common database access method and a database application programming interface (API). The Examiner contends that Balakrishnan teaches such a data provider interface and refers to column 17, lines 45-49 of the Balakrishnan reference. The Examiner states that the “response

could be received using protocols other than the request protocols.” Applicant disagrees with this interpretation of Balakrishnan for a number of reasons. For one, the cited portion of Balakrishnan indicates the response is received in the same protocol as the request protocol. More importantly, however, Balakrishnan refers to a communication protocol and not to a database access method or to a database API. Moreover, no conversion occurs with respect to the requests. In fact, one would not expect Balakrishnan to teach conversion because the system of Balakrishnan is predicated on each database in the system including a Semantic Bridge that implements a Semantic Programming Interface. *Balakrishnan*, col. 5, lines 44-47. Thus, all of the databases in Balakrishnan have a common interface that programs can use to access the databases. For at least these reasons, the Balakrishnan does not teach or suggest a data provider interface that converts between a common database access method and a database API.

Claim 1 also requires the system design converter to generate a building system application by including data obtained with a computer tool interface and external program modules obtained through an external program module interface in the computer statements produced by the system design converter. The SB servlet of Balakrishnan fails to generate a building system application with these components. The computer tool interface of claim 1 uses the data provider interface to obtain data from a database. As explained above, Balakrishnan does not have a data provider interface. Therefore, Balakrishnan also fails to have a computer tool interface that operates with a data provider interface as required by claim 1.

The system design converter of claim 1 generates the building system application using both computer statements *and* external program modules. The SB servlet of

Balakrishnan receives a user source program from a client machine and then compiles the program for execution on the external server. Balakrishnan does not teach, however, that the source program is combined with external program modules before it is compiled. The Examiner can attempt to identify the user source program of Balakrishnan as one of the application definition data, the computer statements, or the external program modules, but not all three. Claim 1 has a system design converter that produces computer statements and combines those statements with data obtained from the computer tool interface and with external program modules to generate the building system application. Balakrishnan neither has these components nor the ability to generate a building system application from the operation of such components.

The Examiner has offered that the chores generated by the system of Balakrishnan correspond to building system applications. This identification fails. Chores are defined as being the combination of a request and a response handler. *Balakrishnan*, col. 21, lines 19-20. The content of a request is defined as being an IP address, authentication information, required protocols (a communication protocol is identified), a program to be executed, and values for program parameters. *Balakrishnan*, col. 21, lines 22-25. A response handler is a program that processes program outputs. *Balakrishnan*, col. 21, lines 27-28. These elements are neither external program modules nor data obtained through a data provider and a computer tool interface. The combination of these elements does not produce computer statements converted from application definition data that includes such external program modules and data. Therefore, the chore queues of Balakrishnan are not building system applications that have been generated as required by claim 1.

For at least all of these reasons, claim 1 is patentable over all references of record, either alone or in combination.

Claim 5

Claim 5 depends from claim 1 and is, therefore, patentable for the reasons discussed above with respect to claim 1. Additionally, claim 5 requires that the external program module interface include common components for application support. The Examiner cites column 22, lines 38-44 as support for the anticipation rejection of claim 5. The cited section, however, refers to a queue of chore objects. As stated above, chores are combinations of requests and response handlers. Neither the requests nor the response handlers are identified as including common components for application support that are part of an external program module interface. Consequently, claim 5 is patentable over all references of record, either alone or in combination.

Claim 15

Claim 15 has been amended to recite more positively the similarity of the building system application generation with the same generation in claim 1. The claim is directed to a method that requires conversion of application definition data into computer statements. As already noted, Balakrishnan does not teach this type of conversion. Additionally, claim 15 requires conversion of common database access method instructions to database API instructions. Balakrishnan contains no teaching of any conversion from common database access method instructions to database API instructions. Claim 15 requires the building system applications to be generated by incorporating into the computer statements the data

obtained from database API instructions converted from common database access instructions and external program modules. For at least these reasons, claim 15 is patentable over references of record, either alone or in combination.

Claim 19

Claim 19 requires that common components for communication be coupled to the computer statements converted from the application definition data. Balakrishnan does not disclose the coupling of such components to computer statements obtained by this method. Therefore, claim 19 is not anticipated by Balakrishnan and the claim is patentable over all references of record, either alone or in combination.

B. Section 103 Ground of Rejection

Claims 2-4 and 16-18

Claims 2-4 depend from claim 1 and claims 16-18 depend from claim 15. Therefore, these claims are patentable for reasons discussed above with respect to claims 1 and 15, respectively. Additionally, each of these claims requires a particular database configuration or the storage of data into a particular database configuration. The Examiner relies upon Gloudeman for teachings on database configurations. This reliance is misplaced, however, as Gloudeman does not teach or suggest a data provider interface to any database configuration and, as discussed above, Balakrishnan also fails to teach or suggest a data provider interface as required by claim 1. Likewise, the Bakalash reference fails to remedy this deficiency. Thus, these claims are patentable over all references of record, either alone or in combination, for at least this additional reason.

Claims 6 and 20

Claim 6 depends from claim 1 and claim 20 depends from claim 15. Therefore, these claims are patentable for reasons discussed above with respect to claims 1 and 15, respectively. Additionally, each of these claims requires a Web-based component for coupling the computer statements with another application over the Internet or the coupling of the computer statements to another application through a Web-based component for communication over the Internet. The Examiner relies on Gloudeman as teaching these limitations. Gloudeman, at the cited section, refers to a generic browser that enables a *user* to view data over the Internet. It does not enable computer statements to communicate with another application over the Internet through a Web-based component. For at least this additional reason, claims 6 and 20 are patentable over all references of record, either alone or in combination.

Claims 7-8 and 21-22

Claims 7-8 depend from claim 1 through claim 5 and claims 21-22 depend from claim 15 through claim 19. Therefore, these claims are patentable for reasons discussed above with respect to claims 1, 5, 15, and 19. Additionally, each of these claims requires that the common components coupled to the computer statements include operating system communication components or that the computer statements be coupled to operating system communication components to enable communication with another application through an operating system. The Examiner again relies upon Gloudeman for this teaching. The cited portion of Gloudeman refers to the building automation system interface and to a third party interface.

Neither type of interface is described as including operating system communication components that are coupled to computer statements in a building system application to support communication through an operating system or a Windows operating system in particular. For at least this additional reason, claims 7-8 and 21-22 are patentable over all references of record, either alone or in combination.

Claims 9 and 23

Claim 9 depends from claim 1 through claim 6 and claim 23 depends from claim 15 through claim 20. Therefore, these claims are patentable for reasons discussed above with respect to claims 1, 6, 15, and 20. Additionally, each of these claims requires that the web-based component couple the computer statements to another application through a customer portal. None of the references of record teach or suggest communication for computer statements used to generate a building system application through a customer web portal. For at least this additional reason, claims 9 and 23 are patentable over all references of record, either alone or in combination.

Claims 10 and 24

Claim 10 depends from claim 1 and claim 24 depends from claim 15. Therefore, these claims are patentable for reasons discussed above with respect to claims 1 and 15, respectively. Additionally, each of these claims requires a configuration utility that develops file structure representative of a building system and that associates configuration data with components identified in the file structure or the development of such file structure and the association of configuration data with components in such file structure. Gloudeman, on

which the Examiner relies to support the section 103 ground of rejection, fails to teach or suggest this component or this type of processing. The data stores referenced in the cited section of Gloudeman only teach the storage of configuration data for a building system. No mention is made of the file structure or of an association of configuration data with components in the file structure. For at least this additional reason, claims 10 and 24 are patentable over all references of record, either alone or in combination.

Claims 11-13 and 25-27

Claim 11-13 depend, directly or indirectly, from claim 1 and claims 25-27 depend, directly or indirectly, from claim 15. Therefore, these claims are patentable for reasons discussed above with respect to claims 1 and 15, respectively. While the Gloudeman reference teaches a third party interface for coupling systems that are incompatible with the standard communication and database API of the building automation system, it does not teach or suggest a data collector interface that couples external data sources to a database having a data provider interface, which enables computer statements produced from application definition data to access that data. For at least this additional reason, these claims are patentable over all references of record, either alone or in combination.

Claims 14 and 28

Claim 14 depends from claim 1 and claim 28 depends from claim 15. Therefore, these claims are patentable for reasons discussed above with respect to claims 1 and 15, respectively. Additionally, each of these claims requires a scheduling service to activate the data collector interface to interrogate the external data sources for data. The Examiner has

interpreted the third party interface as being the data collector interface required by claim 11. Thus, the optimization layer of Gloudeman, which was identified by the Examiner as a scheduling service, would have to activate the third party interface to interrogate the third party systems to obtain data in order for Gloudeman to teach this claim limitation. Otherwise, the Examiner is using Applicant's specification to construct the claimed invention from the disclosures of the cited references. That, indeed, is the case in this instance. Gloudeman does not teach or suggest the optimization layer operating to interrogate external systems through the third party interface. Instead, the Examiner has surmised this type of operation in light of Applicant's specification. This use of Applicant's specification is impermissible and cannot properly support the section 103 ground of rejection. Therefore, claims 14 and 28 are patentable over all references of record, either alone or in combination.

III. Conclusion

For all of the foregoing reasons, Applicant respectfully submits that a patentable contribution has been made to the art with the claimed invention. Favorable reconsideration and allowance of this application is therefore respectfully requested.

In the event Applicant has inadvertently overlooked the need for an extension of time or payment of an additional fee, Applicant conditionally petitions therefore, and authorizes any fee deficiency to be charged to deposit account 13-0014.

Respectfully Submitted,



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